

AMENDMENTS TO THE CLAIMS

1.(Canceled)

2.(Currently Amended)An accelerometer, comprising:

a measurement mass for detecting acceleration, including a housing having a cavity, a spring mass assembly positioned within the cavity, and one or more mass electrodes coupled to the spring mass assembly;

a top cap wafer coupled to the measurement mass, including a top capacitor electrode having a surface; and

a bottom cap wafer coupled to the measurement mass, including a bottom capacitor electrode having a surface;

wherein the surface of one or more of the mass electrodes, the top capacitor electrode, or the bottom capacitor electrode includes one or more re-entrant openings,
wherein the re-entrant openings include one or more re-entrant grooves.

3.(Original)The accelerometer of claim 2, wherein the re-entrant grooves are herringbone shaped.

4.(Original)The accelerometer of claim 2, wherein the re-entrant grooves are criss-crossed.

5.(Original)The accelerometer of claim 2, wherein the re-entrant grooves extend from a central location in a radial direction.

6.(Currently Amended)The accelerometer of claim 2, wherein ~~the~~ a width of the re-entrant grooves increases in ~~the~~ a direction of the periphery of the electrodes that include the re-entrant openings.

7.(Currently Amended)The accelerometer of claim ~~1~~ 2, wherein the openings include one or more re-entrant holes.

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8.(Currently Amended)The accelerometer of claim 7, wherein the re-entrant holes are connected beneath the surfaces of the electrodes that include the re-entrant openings.

9.(Currently Amended)The accelerometer of claim 7, wherein the size of the re-entrant holes increase in ~~the~~ a direction of the periphery of the electrodes that include the re-entrant openings.

10. (Canceled)

11.(Currently Amended) A method of operating an accelerometer including a measurement mass for detecting acceleration, including a housing having a cavity, a spring mass assembly positioned within the cavity, and one or more mass electrodes coupled to the spring mass assembly, a top cap wafer coupled to the measurement mass, including a top capacitor electrode, and a bottom cap wafer coupled to the measurement mass, including a bottom capacitor electrode, comprising:

reducing fluid damping between the mass electrodes and at least one of the top capacitor electrode and the bottom capacitor electrode by providing one or more re-entrant openings in a surface of one or more of the mass electrodes, the top capacitor electrode, and the bottom capacitor electrode ~~The method of claim 10, wherein the re-entrant openings include one or more re-entrant grooves.~~

12.(Original)The method of claim 11, wherein the re-entrant grooves are herringbone shaped.

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13.(Original)The method of claim 11, wherein the re-entrant grooves are criss-crossed.

14.(Original)The method of claim 11, wherein the re-entrant grooves extend from a central location in a radial direction.

15.(Currently Amended)The method of claim 11, wherein ~~the~~ a width of the re-entrant grooves increases in ~~the~~ a direction of the periphery of the electrodes that include the re-entrant openings.

16.(Currently Amended)The method of claim ~~10~~ 11, wherein the openings include one or more re-entrant holes.

17.(Currently Amended)The method of claim 16, wherein the re-entrant holes are connected beneath the surfaces of the electrodes that include the re-entrant openings.

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18. The method of claim 16, wherein the size of the re-entrant holes increase in the a direction of the periphery of the electrodes that include the re-entrant openings.

Claims 19-36 (canceled)
